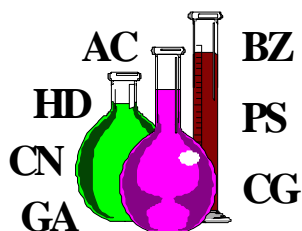


## *U.S. Army Center for Health Promotion and Preventive Medicine*



### *General Facts About Blood Agent Cyanogen Chloride (CK)*

218-30-1096

#### ***General***

Cyanogen chloride irritates the eyes and respiratory tract, even in low concentrations. Acute exposure produces intense irritation of the lungs characterized by coughing and breathing problems, which may quickly lead to a pulmonary edema. Inside the body, cyanogen chloride converts to hydrogen cyanide, which inactivates the enzyme cytochrome oxidase, preventing the utilization of oxygen by the cells. The toxic hazard is high for inhalation, ingestion, and skin and eye exposure, but it is primarily an inhalation hazard due to its high volatility.

#### ***Synonyms***

Chlorcyan;  
Chlorine cyanide;  
Chlorocyan;  
Chlorocyanide;  
Chlorocyanogen;  
Chlorure de cyanogene.

#### ***Description***

Cyanogen chloride is a colorless gas with a sharp, pepperish odor similar to that of most tear gasses. The odor of CK often goes unnoticed because it is so irritating to the mucous membranes. CK is a liquid at temperatures below 55°F.

#### ***Overexposure Effects***

CK is absorbed through the skin and mucosal surfaces and is dangerous when inhaled because toxic amounts are absorbed through bronchial mucosa and alveoli. It is similar in toxicity and mode of action to AC but is much more irritating. CK can cause a marked irritation of the respiratory tract, hemorrhagic exudate of the bronchi and trachea as well as pulmonary edema. It is improbable that anyone would voluntarily remain in areas with a high enough concentration to exert a typical nitrile effect. The liquid form will burn skin and eyes. Long-term exposure will cause dermatitis, loss of appetite, headache, and upper respiratory irritation in humans.

### ***Emergency and First Aid Procedures***

Inhalation: if the patient is conscious, direct first aid and medical treatment toward the relief of any pulmonary symptoms; put patient immediately at bed rest with head slightly elevated; seek medical attention immediately; administer oxygen if there is any dyspnea or evidence of pulmonary edema; in case of long exposures, combined therapy, with oxygen plus amyl nitrite inhalations and artificial respiration is recommended.

Eye Contact: flush affected areas with copious amounts of water immediately; hold eyes open while flushing.

Skin Contact: wash skin promptly to remove the cyanogen chloride; remove all contaminated clothing, including shoes; do not delay.

Ingestion: give victim water or milk; do not induce vomiting.